

**DOCKET NO.:** RUCC-0046 (98-0087)  
**Application No.:** 09/743840  
**Office Action Dated:** September 24, 2003

**PATENT  
REPLY FILED UNDER EXPEDITED  
PROCEDURE PURSUANT TO  
37 CFR § 1.116**

### **REMARKS/ARGUMENTS**

The September 24, 2003 Official Action and references cited therein have been carefully considered. In view of the amendments submitted herewith and the following remarks, favorable reconsideration and allowance of this application are respectfully requested. This Reply is submitted together with a Request for Continued Examination.

#### **Status of the prosecution:**

Claims 1-10 are pending and were examined. Claims 1-10 remain rejected under 35 U.S.C. 112, first paragraph, for allegedly containing subject matter not enabled by the specification. Claims 3 and 4 remain further rejected under 35 U.S.C. 112, first paragraph, on the ground that the subject matter recited therein is not enabled, absent a deposit of the biological material. Claim 1 remains rejected under 35 U.S.C. 102(b) as allegedly anticipated by U.S. Patent No. 4,810,648 to Stalker.

A set of proposed claim amendments was forwarded by the Applicants' undersigned attorney to the examiner for consideration, and a telephonic interview was conducted on February 27, 2004. Applicants' attorney thanks the examiner for her courtesy in reviewing the proposed amendments and granting the interview.

The proposed claim amendments considered by the examiner were the same as those presented herein. In the telephonic interview, the examiner stated her opinion that the subject matter of the proposed amended claims would not be anticipated by the disclosure of U.S. Patent 4,810,648 to Stalker. The examiner further stated her opinion that the enablement requirement would be met by the proposed amended claims, upon submission of a Declaration under 37 C.F.R. §1.132 by an inventor attesting that the exemplified protocols produced transgenic turfgrasses.

A Notice of Appeal was filed on March 24, 2004. This reply and Request for Continued Examination are submitted in *lieu* of an appeal brief. The earlier-proposed claim amendments are submitted herewith. Claim 4 has been canceled and claims 1, 3 and 7 have been amended. No new matter has been added. Support for subject matter relating to plasmids pSB1, pSB4 and pSB11 is found in the specification at page 13, lines 16-34. Sequences of those plasmids were publicly available at the time the instant application was

filed, as may be confirmed by reviewing the information at GenBank Accession Nos. AB027255 (pSB1), AB027254 (pSB4), AB027256 (pSB11) and AB027257 (pTiBo542 containing *vir* genes as also found in pSB1, pSB4 and/or pSB11).

Applicants respectfully assert that the presently amended claims are in condition for allowance, for the reasons set forth below.

**The amended claims satisfy the enablement requirement:**

Claims 1-10 stand rejected on the ground that the specification does not enable practice of the invention in the scope encompassed by the claims. Specifically, the examiner asserts that, though the specification may recite specifics of the methods of the invention, those limitations are not set forth in the claims, and therefore the claims remain too broad to practice without undue experimentation. Applicants traverse this rejection as applied to the presently amended claims. The specification teaches certain factors believed important to the success of transforming turfgrass. These include (1) use of strong monocotyledonous promoters within the transformation vector, (2) use of strong *vir* genes, such as those found in the "superbinary" vector systems described by Komari et al. (Plant J. 10: 165-174, 1996) or in U.S. Patent 5,731,179; and (3) use of starting material that produces friable, regenerable callus. Amended claim 1 now recites each of those three factors. Applicants assert that the method recited in amended claim 1 could be practiced by one of skill in the art, in view of the teachings of the present specification, without undue experimentation. Accordingly, the rejection of claims 1-10 under 35 U.S.C. 112, first paragraph, is untenable and should be withdrawn.

Applicants further assert that, notwithstanding the examiner's assertions to the contrary, the working examples set forth in the specification indeed provide direct evidence that the protocols recited therein result in successful transformation of three different species of turfgrass, namely creeping bentgrass, tall fescue and velvet bentgrass. Each example states that calli subjected to the respective transformation protocols were transferred to hygromycin-containing selection medium, and that hygromycin-resistant calli and plantlets regenerated from those calli were obtained. This is direct evidence of production of transgenic turfgrass species utilizing the exemplified methods. In spite of this, and solely to advance the prosecution of this application, Applicants submit herewith the Declaration of

co-inventor Barbara A. Zilinskas, which provides additional information relating to the exemplified methods. As can be seen from the details provided in paragraphs 11, 12 and 13 of the Zilinskas Declaration, each of the protocols recited in Examples 2, 3 and 4 of the present specification resulted in the successful production of transgenic turfgrass plants. Accordingly, the exemplified protocols, as well as the other teachings of the instant specification, clearly enable practice of the invention as presently claimed. For this reason as well, Applicants request withdrawal of the rejection under 35 U.S.C. 112, first paragraph.

Claims 3 and 4 were rejected on the ground that the recited plasmids are not enabled absent deposit of the plasmids in a biological depository because their sequence information was not given. Claim 4 has been canceled herein. Claim 3 has been amended to recite a hybrid vector produced from pSB1 and pSB11, the sequences of each of which were publicly available at the time the instant application was filed (as can be seen by viewing the information associated with the GenBank Accession Numbers set forth above). Example 1 of the instant specification directs how to make hybrid vector pSB111SH using pSB1 and pSB11; however, this procedure was also known in the art, for instance, as described by Komari et al., 1996, *supra*. Accordingly, one of skill in the art would be able to practice the invention as claimed in amended claim 3 without undue experimentation. Withdrawal of the rejection is therefore requested.

**The claimed subject matter is not anticipated by the cited reference:**

Claim 1 remains rejected under 35 U.S.C. 102(b) as allegedly anticipated by Stalker, U.S. Patent 4,810,648. According to the examiner, Stalker discloses use of *A. tumefaciens* strain LBA4044 containing the virulence plasmid pAL4044, and therefore the protocol of Stalker is deemed to anticipate the invention of claim 1. Applicants traverse this rejection as applied to claim 1 as presently amended.

Claim 1 now recites that the *vir* genes used in the transformation vector are from plasmids pSB1 or pSB4. *Vir* genes from those plasmids were not disclosed by Stalker, nor could they have been, inasmuch as they were unknown at the time the Stalker patent issued. Accordingly, Stalker cannot be said to identically disclose the method as claimed in claim 1. Withdrawal of the rejection of claim 1 under 35 U.S.C. 102(b) is therefore requested.

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**Conclusion:**

Applicants believe this paper to be fully responsive to all outstanding issues. In view of the amendments presented herewith and the foregoing remarks, the claims are considered to be in condition for allowance and the same is earnestly sought in an early and favorable action. If further discussion would facilitate advancement of this application to allowance, the examiner is invited to contact the undersigned attorney at the telephone number provided below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Janet E. Reed", is written over a horizontal line.

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